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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/835,316	04/17/2001	Seiji Umemoto	Q64129	5326

7590 05/05/2004  
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Washington, DC 20037

EXAMINER

ERDEM, FAZLI

ART UNIT	PAPER NUMBER
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2826

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/835,316

**Applicant(s)**

UMEMOTO ET AL.

**Examiner**

Fazli Erdem

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-15 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Allowable Subject Matter***

1. Claim 3 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 4-10, and 14 rejected under 35 U.S.C. 103(a) as being unpatentable over Colgan et al. (6,483,498) in view of Hamada (6,501,528) further in view of Nishikawa et al. (5,907,375) further in view of Inou (5,774,107).

Regarding Claims 1, 2, 4-8, 10 and 14, Colgan et al. disclose a liquid crystal display with integrated resistive touch sensor. Liquid crystal display includes a first substrate having a first conductive layer formed on it. A linearization pattern is formed on the first conductive layer for applying voltage gradients across the first conductive layer. A flexible polarizer is included having a second conductive layer formed on it facing the first conductive layer across a gap formed between, the polarizer providing a contact surface such that a touched position on the polarizer causes contact between the first conductive layer and the second conductive layer and

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identifying a location of the touched position. Colgan et al. fail to disclose the electrode for the touch panel structure, touch panel location and the gap structure in the touch panel. However, Hamada discloses a stacked display device with folded substrate where the required electrode structure for the touch panel is disclosed. Furthermore, Nishikawa et al. disclose an input-output unit where the required touch panel location is disclosed. Finally, Inou et al. disclose a display apparatus with input functions where required gap structure is disclosed.

It would have been obvious to one of having ordinary skill in the art at the time the invention was made to include the required electrode, touch panel location, and gap structures in Colgan et al. as taught by Hamada, Nishikawa, and Inou respectively in order to have an LCD device with more better performing touch structure.

3. Claim 11 rejected under 35 U.S.C. 103(a) as being unpatentable over Colgan et al. (6,483,498) in view Hamada (6,501,528) further in view of Nishikawa et al. (5,907,375) further in view of Inou (5,774,107) further in view of Okuda et al. (5,963,280).

Regarding Claim 11, Colgan et al., Hamada, Nishikawa et al. and Inou combination fail to show a macromolecular dispersion structure. However, Okuda et al. disclose a liquid crystal display device with a touch panel where the macromolecular dispersion structure is shown.

It would have been obvious to one of having ordinary skill in the art at the time the invention was made to include the macromolecular structure in Colgan, Hamada, Nishikawa et al. and Inou combination as taught by Okuda et al. in order to have an LCD structure with better functionality.

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4. Claims 12 and 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Colgan et al. (6,483,498) in view of Hamada (6,501,528) further in view of Nishikawa et al. (5,907,375) further in view of Inou (5,774,107) further in view of Takatori et al. (6,504,592)

Regarding Claims 12 and 13, Colgan et al. as taught by Hamada, Nishikawa et al. and Inou fail to show a cholesteric LCD structure and protrusion structure. However, Takatori et al. disclose a liquid crystal display device with a touch panel where the cholesteric LCD structure and the protrusion structure are shown.

It would have been obvious to one of having ordinary skill in the art at the time the invention was made to include the cholesteric LCD structure and protrusion structure in Colgan et al. as taught by Hamada, Nishikawa et al. and Inou combination as taught by Takatori et al. in order to have an LCD structure with better functionality.

5. Claims 15 rejected under 35 U.S.C. 103(a) as being unpatentable over Colgan et al. (6,483,498) in view of Hamada (6,501,528) further in view of Nishikawa et al. (5,907,375) further in view of Inou (5,774,107) further in view of Yamagata (6,088,024).

Regarding Claim 15, Colgan et al. as taught by Hamada, Nishikawa et al., and Inou fail to show the method of input detection method. However, Yamagata et al. disclose a liquid crystal display device with a touch panel where the input detection method is shown.

It would have been obvious to one of having ordinary skill in the art at the time the invention was made to include the input detection method Colgan et al. as taught by Hamada, Nishikawa et al. and Inou combination as taught by Yamagata et al., in order to make an LCD structure with better functionality.

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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fazli Erdem whose telephone number is (571) 272-1914. The examiner can normally be reached on M - F 8:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272-1915. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

FE  
May 3, 2004

NATHAN J. FLYNN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800